

Remarks

Claims 1-43 are pending in this application, and claims 1-43 are rejected.

Rejections Under 35 USC 112

Page 2 of the Office Action enumerates the Examiner's rejections of the claims under 35 USC 112. Specifically, claims 1, 27, 28, 29, 30, 37, 42, and 43 are rejected as indefinite because "it is unclear if the phrase "in particular of a binary photo mask blank, a phase shifting photo mask blank or an extreme ultra violet photo mask blank" is meant to further limit the claims. Claims 27, 34, and 36 are rejected because of the features in parentheses. The "112" rejections are overcome in this Amendment by canceling the facultative features and features in parentheses.

Rejections Under 35 USC 102

Claims 1-9, 11-13, 18-20, 24, 25, 27-31, 34-38, and 40-43 are rejected as being anticipated by Carcia.

Valid rejection under 35 USC 102 requires that each feature of a rejected claim be disclosed in a single reference. "For anticipation under 35 USC 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." MPEP 706.02(a)

In claims 1, 26-28, 40, and 41, the claims are amended to include the feature of depositing a layer having a film stress of 0.2 MPa or less. This feature is found in paragraph [0037] of the description. None of the documents cited in the Office Action teaches sputtered layers having such a low film stress. Accordingly, the subject matter of these claims is respectfully believed to be new and inventive over the cited prior art.

Rejection Under 35 USC 103

Claims 10 and 39, 14-17, 21-23 and 26 are rejected under 35 USC 103 as being anticipated by Carcia, combined with other cited art.

Valid rejection under 35 USC 103(a) requires evidence of a suggestion or motivation for one skilled in the art to combine prior art references to produce the claimed invention. US Court of Appeals for the Federal Circuit (*Ecolchem inc. v Southern California Edison Co.*, Fed. Cir., No. 99/1043, 9/7/00).

The best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for showing a teaching or motivation to combine the prior art references, according to the court.

Carcia does not motivate or suggest to one skilled in the art to combine these references to produce Applicant's claimed invention.

Court of Appeals for the Federal Circuit confirmed the above principles in *In Re Sang-Su Lee* (00-1158). The court analyzed 35 USC 103 requirements starting from the Administrative Procedure Act and held (citations omitted):

"Tribunals of the PTO are governed by the Administrative Procedure Act, and their rulings receive the same judicial deference as do tribunals of other administrative agencies.

"The Administrative Procedure Act, which governs the proceedings of administrative agencies and related judicial review, establishes a scheme of "reasoned decision making." Not only must an agency's decreed result be within the scope of its lawful authority, but the process by which it reaches that result must be logical and rational.

“As applied to the determination of patentability vel non when the issue is obviousness, it is fundamental that rejections under 35 USC §103 must be based on evidence comprehended by the language of that section. (Emphasis added). When patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness. (Emphasis added)

“The factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. There must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the Applicant. Teachings of references can be combined only if there is some suggestion or incentive to do so.”

As stated above, **Carcia does not motivate or suggest to a person skilled in the art to combine the references cited to duplicate the claims of the present invention.**

Carcia does not anticipate the present invention.

Claim 7 has been redrafted as an independent claim, including the features of claims 15 and 16, and claims 15 and 16 have been cancelled. Claim 7 defines a method for manufacturing of a photo mask blank whereby a layer is deposited by means of ion beam sputtering, whereby the surface of the substrate is cleaned from impurities by

irradiating with a second particle beam before the deposition of the first layer, and wherein at least one reactive gas is provided in said vacuum chamber at a predetermined pressure and the cleaning is enhanced by the at least one reactive gas.

Claim 15 is rejected under 35 USC 103 as being obvious in view of Scott.

The Office Action states that original claim 15 would be obvious over Carcia in combination with Scott. The Office Action states that Scott teaches that the assist ion beam can be formed of a mixture of argon, xenon, and oxygen. However, in contrast, amended claim 7 defines that the surface is cleaned from impurities by irradiating with the second particle beam before the deposition of the first layer, wherein at least one reactive gas is provided in the vacuum chamber at a predetermined pressure and the cleaning is enhanced by the at least one reactive gas. Accordingly, cleaning is achieved by a particle beam combination with a reactive gas in the chamber. Scott merely teaches to use a reactive gas ion beam to clean the surface, but clearly fails to teach enhancing cleaning by filling a reactive gas into the chamber during the ion beam bombardment. Further, there is no motivation for a person skilled in the art to additionally flood the chamber with a reactive gas, as the ion beam according to Scott already contains a reactive gas component.

Accordingly, the subject matter of claim 7 is believed to be novel and inventive.

The features included in claim 7 have also been included into the method according to claim 25 and the apparatus as defined in claim 35. Accordingly, these claims are believed to be novel and inventive, as well as claim 7.

Double Patenting

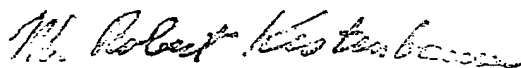
The subject matter of the amended claims differs from the invention as claimed in co-pending application 10/367,539. Consequently, it is respectfully believed that the double patenting objections set forth in the Office Action are overcome by the claims set forth in this Amendment.

Applicant respectfully believes that this Amendment places the claims in condition for allowance.

A two-month extension of time in which to respond to the outstanding Office Action is hereby requested. PTO 2038 authorizing charging a credit card in the amount of \$450 is enclosed for the prescribed large entity two-month extension fee.

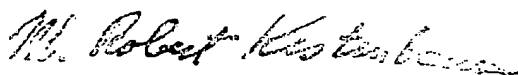
Wherefore further consideration and allowance of the application as amended is respectfully requested.

Respectfully submitted,



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I hereby certify this correspondence is being submitted by facsimile transmission to Commissioner for Patents, Alexandria, Va. 22313-1450 on November 9, 2005, fax number (571) 273-8300.



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